

## **ABSTRACT OF THE DISCLOSURE**

A power transmission tower carrying power lines has a wind turbine mounted to an upper portion of the tower. The wind turbine has a rotor which drives a generator for generating electric power. The generated power is stepped up using a transformer before being fed into one of the power lines. Optionally, electric power generated by a plurality of such wind turbines could be accumulated downstream and then transformed and fed into the grid at multiple-tower intervals. The wind turbine can be mounted on a lattice tower, a monopole tower or a hybrid tower. The wind turbine has either a fixed horizontal axis or a variable (but non-vertical) axis. Alternatively, a vertical-axis wind turbine may be used provided the generator is mounted at or near the top of the tower. Using existing infrastructure, the present invention supplements the capacity of a power grid with environmentally friendly power generation.